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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,527	01/20/2004	J. Michael Lee	67722/27	7048

27871 7590 01/15/2008
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CANADA

EXAMINER

PELLEGRINO, BRIAN E

ART UNIT	PAPER NUMBER
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3738

MAIL DATE	DELIVERY MODE
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01/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/759,527

Applicant(s)

LEE ET AL.

Examiner

Brian E. Pellegrino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

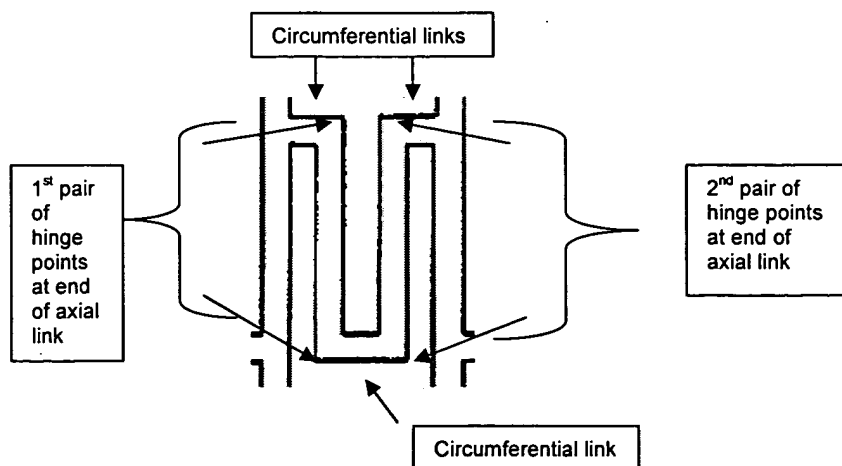
Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/15/07 has been entered.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Israel et al. (5733303). Fig. 2 shows a stent with circumferentially spaced longitudinal struts **22** interconnected by linkages having a pair of hinge points that are angularly disposed and permit radial expansion and spaced apart at predefined locations.



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The corners of the links form hinge points, which are fully capable of deforming upon radial expansion. Please note that in order for functional recitations to be given patentable weight, a functional limitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 388 O.G. 279. There is no structure recited in the claim other than hinge points and thus, Israel discloses (col. 3, lines 38-40,43-45,48,49) the hinges allow for bending or deformation, which thus have "zones of relative weakness" along these links since all materials have the capability of being deformed. Israel discloses the struts inhibit *relative* foreshortening of the stent body, col. 1, line 53, col. 5, lines 13-65.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Israel et al. '303 in view of Orth et al. (5591197). Israel et al. is explained supra. However, Israel fails to disclose the hinge point *zones* of relative weakness are of a reduced cross-sectional profile. Orth et al. teach (Figs. 3A and 4A) a *connector or link* with notches or reduced cross-sectional areas to provide a weakened area, col. 6, lines 51-54. It would have been obvious to one of ordinary skill in the art to use a reduced cross-sectional in a link area as taught by Orth in the stent of Israel in order to impart greater flexibility.

Claims 3,5-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Israel et al. '303 in view of Hickie et al. (5139480). Israel is explained supra. However,

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Israel et al. fail to disclose the linkages having intersections of the axial and circumferential links forming nodes with greater cross-sections than the central portion of the adjacent link. Hickie et al. teach (Figs. 1A-1D) that stents can have links of various length and have nodes at the ends of the link where it intersects with another or linking material. It can also be seen that there is tapering of the links at the ends to the central section. Hickie also teaches that reduced cross-sections can be used in any direction with respect to the axis of the stent body, col. 5, lines 1-5. It would have been obvious to one of ordinary skill in the art to incorporate reduced cross-section linkages as taught by Hickie et al. in the stent of Israel et al. such that enhances the bendability and reduces the stresses during expansion and would yield predictable results from doing so.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Israel et al. '303 in view of Hickie et al. '480 as applied to claim 3 above, and further in view of MacGregor (4994071). Israel as modified by Hickie is explained as before. However, Israel in view of Hickie fail to disclose all the linkages being unidirectionally facing. MacGregor teaches (Fig. 1) that all the linkages 12 connecting struts are unidirectionally facing since an axis along the length will have each of the linkages along that axis facing in the same direction. It would have been obvious to one of ordinary skill in the art to place linkages in a unidirectional way as taught by MacGregor in the stent of Israel as modified by Hickie since doing so produces predictable results of a more uniform expansion.

Response to Arguments

Applicant's arguments filed 10/15/07 have been fully considered but they are not persuasive. Applicant argues that the linkages of Israel's device do not have zones of relative weakness in predefined locations. However, Applicant failed to structurally define how the "deformable zone" is any different than Israel's linkage being deformed. Applicant additionally argues that the Orth reference teaches a different use for the deformable links. Regardless of what the reduced cross-sectional link of Orth is used for, it clearly provides the teaching of a "zone of relative weakness" that reduces stress on the link. Thus, in response to Applicant's remarks that there is no teaching in the references to combine the features of the prior art, it should be noted that *Ex parte Smith* 83 USPQ2d 1509 states the KSR decision explains why no teaching is required to support a finding of obviousness. For example the combination of known features is obvious when it does nothing more than produce predictable results. In this case using a reduced cross-section clearly provides a deformable zone of relative weakness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Pellegrino whose telephone number is 571-272-4756. The examiner can normally be reached on Monday-Friday from 9am to 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott, can be reached at 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC 3700, AU 3738

BRIAN E. PELLEGRINO
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Brian Pellegrino", written in a cursive style.